

SAMSUNG

CL-29Z40MQ

COLOR TELEVISION



**Owner's
Instructions**

Register your product at www.samsung.com/global/register

Important Warranty Information Regarding Television Format Viewing

Standard screen format televisions (4:3, the aspect ratio of the screen width to height) are primarily designed to view standard format full-motion video. The images displayed on them should primarily be in the standard 4:3 ratio format and constantly moving.

Displaying stationary graphics and images on screen, such as the dark top and bottom letterbox bars (wide screen pictures), should be limited to no more than 15% of the total television viewing per week.

Wide screen format televisions (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature, and constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on non-expanded standard format television video and programming, should be limited to no more than 15% of the total television viewing per week.

Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. ***Displaying any stationary images that exceed the above guidelines can cause uneven aging of picture tubes (CRTs) that leave subtle, but permanent burned-in ghost images in the television picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars.*** On television models that offer picture sizing features, use these controls to view the different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven CRT aging as a result of format selection and use, as well as other burned-in images, is not covered by your Samsung limited warranty.

A Guide to Digital TV

What is Digital Television?

Digital television (DTV) is a new way of transmitting high quality video and audio to your TV set. Using DTV, broadcasters can transmit high definition TV (HDTV) images, Dolby Digital surround audio, and new services such as multicasting (transmitting more than one program on the same TV channel) and datacasting (providing electronic program guides and interactive television). Several of these services can be combined into a single digital broadcast.

Digital Television Services

Digital Picture Quality

DTV programs are transmitted in two different formats. The first is Standard Definition Television (SDTV) and the second is High Definition Television (HDTV).

SDTV program formats include 480-line interlaced (480i) and 480-line progressive (480p) video. 480i programs are essentially a digital version of our current analog TV programs, while the 480p format offers improved image detail over 480i. Some 480p programs are broadcast in widescreen and are comparable to progressive-scan DVD movies in image quality.

HDTV program formats include 1080-line interlaced (1080i) and 720-line progressive (720p). Both HDTV formats are always broadcast in widescreen, and offer much higher picture quality than SDTV.

Dolby Surround Sound

With DTV, you can listen to a variety of Dolby Digital audio formats from Dolby Surround 2.0 to Dolby Digital 5.1 surround, using your home audio system. Many HDTV programs are now broadcast with Dolby Digital 5.1 soundtracks.

Interactive Communications and Datacasting

DTV will allow you to interact with your television; choosing programs from a detailed program guide, ordering products on-line while watching TV, and accessing ancillary data about a program.

How to View Digital Television

There are three ways to watch DTV. The first is to use an integrated digital TV; one with a built-in digital television tuner. The second is to connect an external DTV set-top receiver to a DTV-ready television or monitor. This type of TV or monitor will have wideband component video and stereo audio inputs. You can also watch DTV signals with personal computer (PC) tuner cards and computer monitors.

Integrated TVs versus DTV-ready TVs and monitors

The advantage of an integrated DTV set is that it can tune both analog and digital TV channels at the same time. All you need to do is add an external antenna and you are ready to watch DTV.

However, integrated DTV sets are not as common as DTV-ready TVs and monitors. If you already own a DTV-ready TV with component video inputs, you can enjoy DTV broadcasts by simply adding a low-cost DTV set-top receiver and antenna.

NOTE

This television receiver supports the copy protection system regulated by DTLA (Digital Transmission Licensing Administrator). It should be noted that copy protected content may not be viewable depending on your particular connections.

Q&A

1. Is the antenna I use for existing TV reception good enough for DTV?

Over-the-air (OTA) digital TV broadcasting uses the same channels as analog TV and works well with many existing TV antennas. However, DTV broadcast channel assignments are different than analog channels. You should find out whether your local DTV broadcasts are on VHF (channels 2-13) or UHF (channels 14-69) to see if you need a different antenna.

If your DTV channels are on UHF and you already get good UHF reception, your present antenna may work fine. The same holds true for VHF DTV reception. Note that in some markets, both VHF and UHF channels are used for DTV broadcasts.

You can find out the latest DTV channel assignments for your area by browsing selected Internet web sites such as www.titantv.com, and www.fcc.gov.

2. How difficult is it to receive DTV signals indoors?

This depends on whether your local DTV stations are running full power or not and how close your location is to the transmission tower. DTV receivers do not require as much signal as analog TV receivers to produce high-quality images and sound.

Once the DTV signal level exceeds a certain threshold at the receiver, the digital video and audio data is decoded at the same quality it was originally encoded for broadcast. This is a big advantage for DTV over analog TV - there is no noise, ghosting, static, or scratchy audio.

3. How can I connect an antenna in my townhouse, co-operative apartment, condominium, or apartment?

The Federal Communications Commission's OTARD Rule (part of the Telecommunications Act of 1996) allows residents of condominiums, townhouse, or members of neighborhood associations to put up outside antennas for reception of broadcast TV signals as long as those antennas are not located in common areas and are no more than 12" in height.

Residents of rental units (apartments, etc) are not covered by the OTARD rules and will have to use indoor antennas to receive DTV broadcasts. It is possible that the landlord of an apartment complex can provide broadcast DTV signals via a master TV antenna system to each apartment.

4. Can I connect my DTV set-top receiver to my cable TV service?

Cable TV systems use a different method for transmitting digital TV programs that is currently incompatible with broadcast DTV set-top receivers. So you will still need to use an outdoor or indoor antenna to receive OTA broadcast DTV programs.

The good news is that you won't have to pay a monthly or per-program charge to watch OTA DTV and HDTV programs. They're free, unlike subscription satellite TV or premium cable TV. All you need is an antenna and a DTV set-top receiver to enjoy clear, sharp widescreen images and high-quality audio.

Chapter 1: Your New TV	8
List of Features	8
Checking Accessories	8
Familiarizing Yourself with the TV.....	9
Control Buttons	9
Connection Jacks (Side).....	10
Connection Jacks (Rear)	11
Remote Control	12
 Chapter 2: Installation	 13
Connecting VHF and UHF Antennas.....	13
Antennas with 300-ohm Flat Twin Leads.....	13
Antennas with 75-ohm Round Leads.....	14
Separate VHF and UHF Antennas.....	14
Connecting Cable TV	15
Cable without a Cable Box	15
Connecting to a Cable Box that Descrambles All Channels	15
Connecting to a Cable Box that Descrambles Some Channels.....	16
Connecting a VCR.....	17
Connecting a Second VCR to Record from the TV	18
Connecting a Camcorder.....	18
Connecting a DVD Player	19
Connecting to Y, PB, PR.....	19
Connecting to Regular Audio and Video Jacks.....	19
Connecting to an Analog Amplifier.....	20
Installing Batteries in the Remote Control.....	21
 Chapter 3: Operation.....	 22
Turning the TV On and Off	22
Plug & Play Feature.....	22
Viewing the Menus and On-Screen Displays.....	25
Viewing the Menus.....	25
Viewing the Display.....	25
Selecting a Menu Language.....	26
Selecting the Antenna Input	26
Memorizing the Channels.....	27
Selecting the Video Signal Source	27
Storing Channels in Memory	28
Adding and Erasing Channels.....	30
Changing Channels	31
Using the Channel Buttons	31
Using the Number Buttons	31
Using the “-” Button in DTV mode.....	31
Using the PRE-CH Button to Select the Previous Channel	31
Labelling the Channels	32
Picture Control.....	33
Using Automatic Picture Settings.....	33
Customizing the Picture	34
Resetting the Picture Settings to the Factory Defaults.....	35

continued...

Chapter 3: Operation.....	36
Sound Control.....	36
Adjusting the Volume	36
Using the MUTE Button	36
Using Automatic Sound Settings.....	37
Customizing the Sound	38
Setting the Clock.....	39
Viewing an External Signal Source.....	40
Setting the Signal Source	40
Assigning Names to External Input Mode.....	41
 Chapter 4: Special Features.....	 42
[Analog] Fine Tuning Channels.....	42
[Digital] Checking the Digital-Signal Strength	43
Changing the Screen Size	44
Digital Noise Reduction.....	45
Tilt	46
Using the R.Surf Feature.....	47
[Analog] Choosing a Multi-Channel Sound (MTS) track.....	48
[Digital] Choosing a Multi-Channel Sound (MTS) track.....	49
Extra Sound Settings (Auto Volume, Pseudo Stereo, or Turbo Plus).....	50
Setting the On/Off Timer	51
Setting the Preferred Option	52
Setting the Sleep Timer.....	53
[Analog] Viewing Closed Captions (On-Screen Text Message)	54
[Digital] Viewing Closed Captions (On-Screen Text Message)	56
Setting the Blue Screen Mode	58
Setting the On/Off Melody.....	59
 Chapter 5: Troubleshooting	 60
Identifying Problems	60
 Appendix	 61
Cleaning and Maintaining Your TV.....	61
Using Your TV in Another Country	61
Specifications	61

Chapter One

YOUR NEW TV

List of Features

Your TV is designed with the latest technology. This TV is a high-performance unit that includes the following special features:

- Easy-to-use remote control
- Easy-to-use on-screen menu system
- Automatic timer to turn the TV on and off
- Adjustable picture and sound settings that can be stored in the TV's memory
- Automatic channel tuning for up to 181 channels
- A special filter to reduce or eliminate reception problems
- A built-in multi-channel sound decoder for stereo and bilingual listening
- Built-in, dual channel speakers
- A special sleep timer
- Capable of receiving Analog and Digital TV broadcasts

Checking Accessories

Once you have unpacked your TV, check to make sure that you have all the parts shown here. If any piece is missing or broken, call your dealer.



Remote Control/
AAA Batteries



Owner's Instructions/
Safety Guide Manual

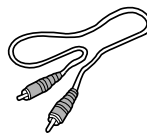


Warranty Cards/
Registration Card
(Not available in all locations)

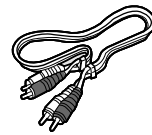
The following parts are sold separately and are available at most electronics stores.



S-VIDEO Cable



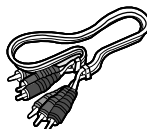
Video Cable



Audio Cable



Antenna Cable

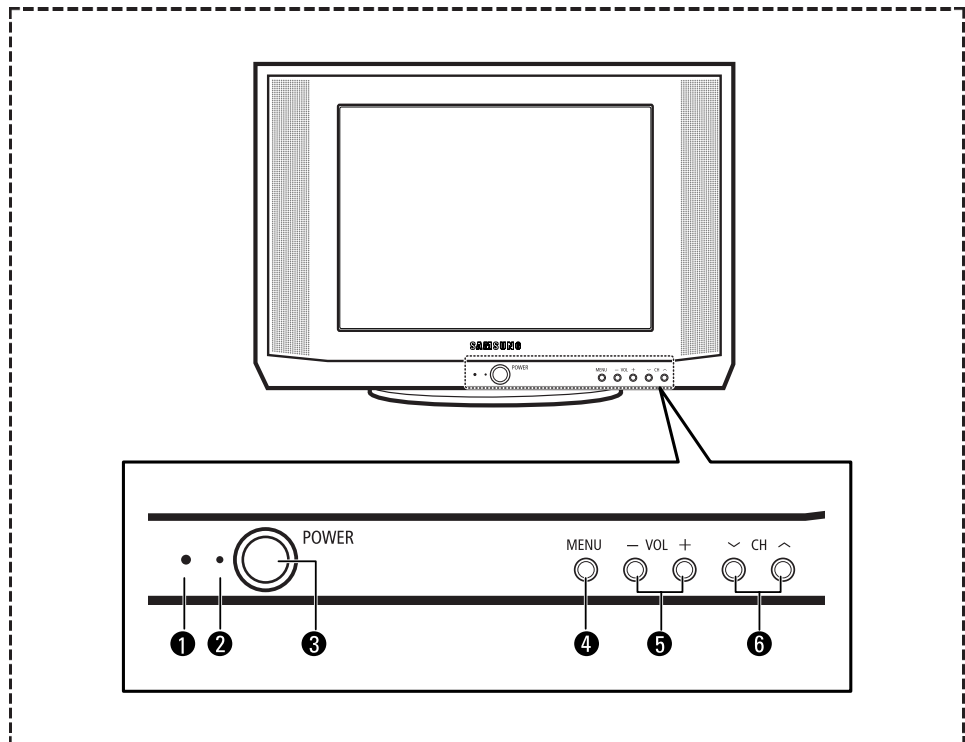


Component Cable

Familiarizing Yourself with the TV

Control Buttons

You can control your TV's basic features, including the on-screen menu. To use the more advanced features, you must use the remote control. The product color and shape may vary depending on the model.



❶ Remote Control Sensor

Aim the remote control towards this spot on the TV.

❷ Stand-By Indicator

Lights up when you turn the power off.

- Power Off ; Red
- Power On ; Off

❸ POWER

Press to turn the TV on and off.

❹ MENU

Press to see an on-screen menu of your TV's features.

❺ + VOL -

Press to increase or decrease the volume.

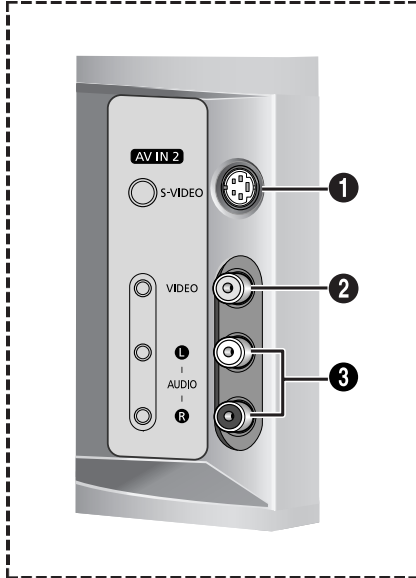
Also used to select items on the on-screen menu.

❻ ^ CH v

Press to change channels. Also press to move between items on the on-screen menu.

Connection Jacks (Side)

You can connect an A/V component that is used only occasionally, such as a camcorder or video game. (For information on connecting equipment, see page 18.)



- Please be sure to match the color coded input terminals and cable jacks.

❶ S-VIDEO Input

Connect an S-Video signal from a camcorder or video game.

❷ VIDEO Input

Connect a video signal from a camcorder or video game.

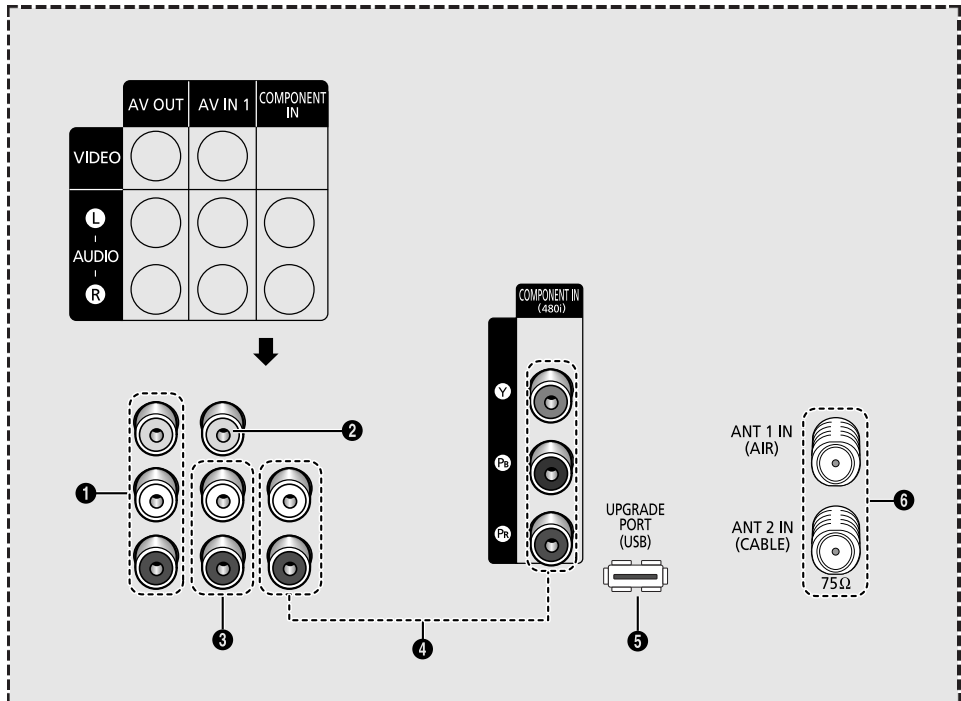
❸ AUDIO (R/L) Input

Connect audio signals from a camcorder or video game.

Connection Jacks (Rear)

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player.

For more information on connecting equipment, see pages 13~20.



- Please be sure to match the color coded input terminals and cable jacks.

❶ Audio-Video Output jacks

Connect to the audio/video input jacks of a recording VCR.

❷ Video Input jacks

Connect to the video output jacks of VCRs, DVD players and similar devices.

❸ Audio Input jacks

Connect to the audio output jacks of VCRs, DVD players and similar devices.

❹ Component Input jacks (Y, PB, PR, AUDIO-R/L)

Connect to the Component audio and video outputs of a DVD or DTV set-top box. 480i video signal input is available.

❺ UPGRADE PORT (USB)

For service only.

❻ ANTENNA terminals

Two independent cables or antennas can be connected to these terminals. Use "ANT 1 IN (AIR)" and "ANT 2 IN (CABLE)" terminals to receive a signal from VHF/UHF antennas or your cable system.

Remote Control

You can use the remote control up to about 23 feet from the TV. When using the remote, always point it directly at the TV.

- This is a special remote control for the visually impaired, and has Braille points on the Power, Channel and Volume buttons.

1 POWER

Turns the TV on and off.

2 Number buttons

Press to select channels directly on the TV.

3 —

Press to select additional channels being broadcast by the same station. (Refer to page 31)

4 VOL +, VOL -

Press to increase or decrease the volume.

5 MENU

Displays the main on-screen menu.

6 ▲/▼/◀/▶

Controls the cursor in the menu.

7 ENTER

While using the on-screen menus, press ENTER to activate (or change) a particular item.

8 S.MODE

Adjust the TV sound by selecting one of the preset factory settings (or select your personal, customized sound settings). (Refer to page 37)

9 P.MODE

Adjust the TV picture by selecting one of the preset factory settings (or select your personal, customized picture settings). (Refer to page 33)

10 ADD/DEL

Press to add or erase channels in the TV's memory. (Refer to page 30)

11 AUTO PROG.

Press to display the memorized channels menu. (Refer to page 29)

12 ANTENNA

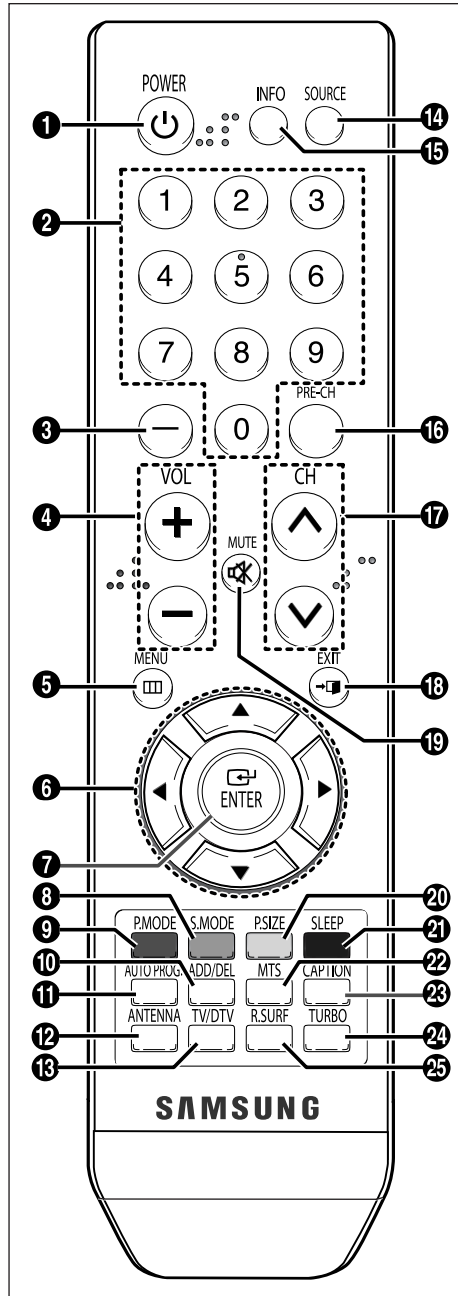
Press to select "Cable" or "Air". (Refer to page 26)

13 TV/DTV

Press to switch between TV (Analog) and DTV (Digital) mode.

14 SOURCE

Press to display all of the available video sources. (Refer to page 40)



15 INFO

Press to display information on the TV screen. (Refer to page 25)

16 PRE-CH

Tunes to the previous channel. (Refer to page 31)

17 CH ^, CH v

Press to change channels.

18 EXIT

Press to exit the menu.

19 MUTE

Press to temporarily cut off the sound. (Refer to page 36)

20 P.SIZE

Press to change the picture size. (Refer to page 44)

21 SLEEP

Press to select a preset time interval for automatic shut off. (Refer to page 53)

22 MTS

(Multi-channel Television Sound) Press to choose "Stereo", "Mono", or "SAP" (Secondary Audio Program). (Refer to pages 48-49)

23 CAPTION

Controls the caption decoder. (Refer to pages 55, 57)

24 TURBO

Press to select Turbo sound.

25 R.SURF

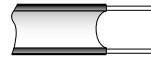
Press to automatically return to a preferred channel after a user-preset time delay. (Refer to page 47)

Chapter Two

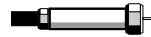
INSTALLATION

Connecting VHF and UHF Antennas

If your antenna has a set of leads that look like this, see “Antennas with 300-ohm Flat Twin Leads” below.



If your antenna has one lead that looks like this, see “Antennas with 75-ohm Round Leads” on page 14.



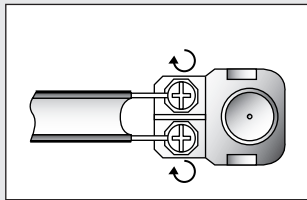
If you have two antennas, see “Separate VHF and UHF Antennas” on page 14.

Antennas with 300-ohm Flat Twin Leads

If you are using an off-air antenna (such as a roof antenna or “rabbit ears”) that has 300-ohm twin flat leads, follow the directions below.

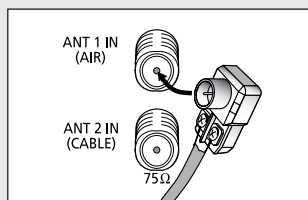
1

Place the wires from the twin leads under the screws on the 300-75 ohm adapter (not supplied). Use a screwdriver to tighten the screws.



2

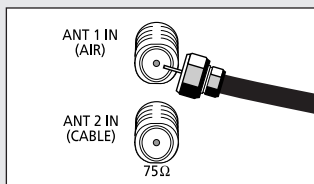
Plug the adapter into the “ANT 1 IN (AIR)” terminal on the rear panel.



INSTALLATION

Antennas with 75-ohm Round Leads

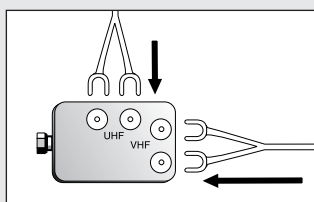
1
Plug the antenna lead into the "ANT 1 IN (AIR)" terminal on the rear panel.



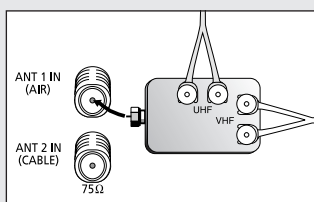
Separate VHF and UHF Antennas

If you have two separate antennas for your TV (one VHF and one UHF), you must combine the two antenna signals before connecting the antennas to the TV. This procedure requires an optional combiner-adapter (available at most electronics shops).

1
Connect both antenna leads to the combiner.



2
Plug the combiner into the "ANT 1 IN (AIR)" terminal on the rear panel.



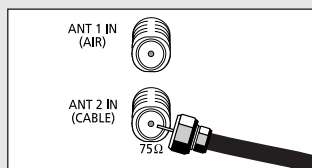
Connecting Cable TV

To connect to a cable TV system, follow the instructions below.

Cable without a Cable Box

1

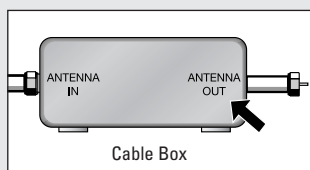
Plug the incoming cable into the "ANT 2 IN (CABLE)" terminal on the rear panel.



Connecting to a Cable Box that Descrambles All Channels

1

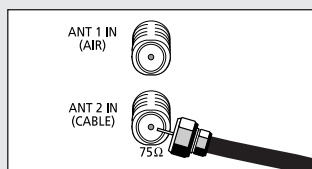
Find the cable that is connected to the ANTENNA OUT terminal on your cable box.



◀ This terminal might be labelled "ANT OUT", "VHF OUT" or simply, "OUT".

2

Connect the other end of this cable to the "ANT 2 IN (CABLE)" terminal on the rear panel.

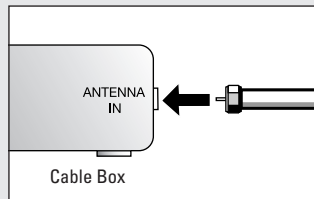


Connecting to a Cable Box that Descrambles Some Channels

If your cable box descrambles only some channels (such as premium channels), follow the instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths of coaxial cable. (These items are available at most electronics stores.)

1

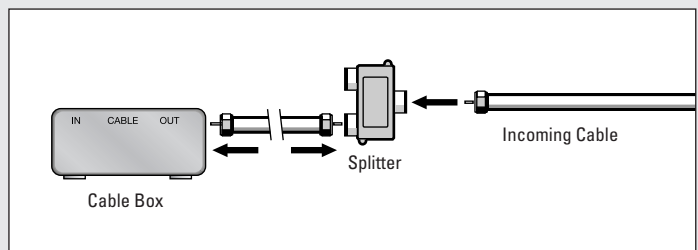
Find and disconnect the cable that is connected to the ANTENNA IN terminal on your cable box.



◀ This terminal might be labelled “ANT IN”, “VHF IN” or simply, “IN”.

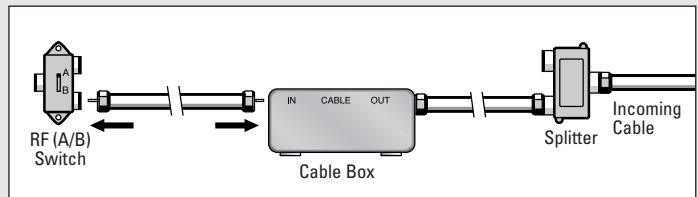
2

Connect this cable to a two-way splitter. Connect a coaxial cable between an OUTPUT terminal on the splitter and the IN terminal on the cable box.



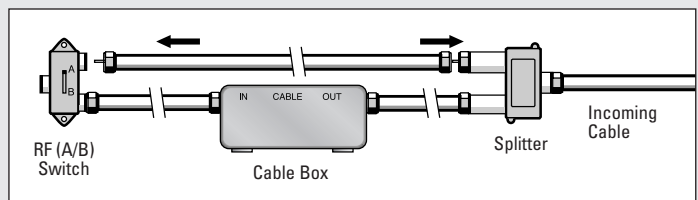
3

Connect a coaxial cable between the ANTENNA OUT terminal on the cable box and the B-IN terminal on the RF(A/B) switch.



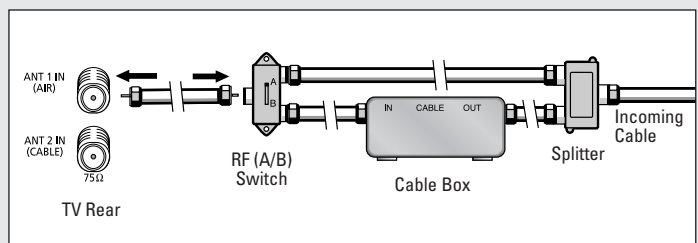
4

Connect another cable between the other OUT terminal on the splitter and the A-IN terminal on the RF (A/B) switch.



5

Connect the last coaxial cable between the OUT terminal on the RF (A/B) switch and the “VHF/UHF” terminal on the rear panel.



After you've made this connection, set the A/B switch to the “A” position for normal viewing. Set the A/B switch to the “B” position to view scrambled channels. (When you set the A/B switch to “B”, you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

Connecting a VCR

These instructions assume that you have already connected your TV to an air or a cable TV system (according to the instructions on pages 13~16).

- Please be sure to match the color coded input terminals and cable jacks.

1

Connect a coaxial cable between the “ANT 1 IN (AIR)” (or “ANT 2 IN (CABLE)”) terminal on the TV and the antenna out terminal on the VCR.

A coaxial cable is usually included with a VCR. (If not, check your local electronics store).

2

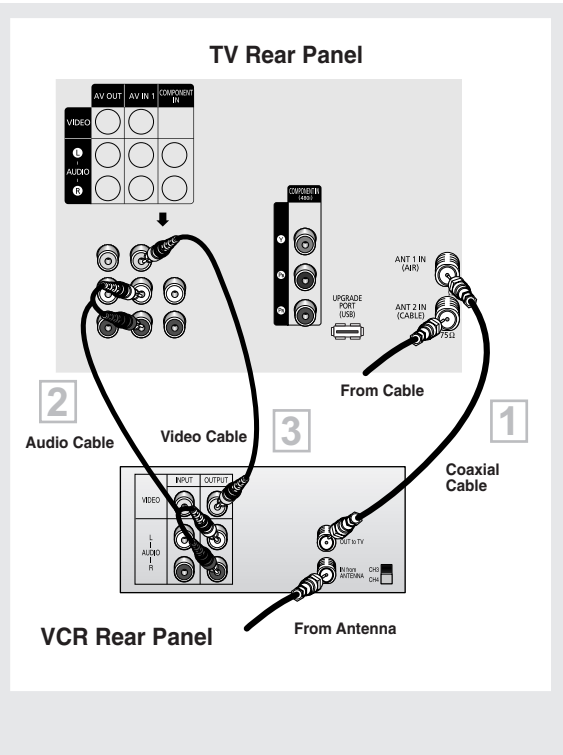
Connect a set of audio cables between the “AV IN 1 (R, L)” jacks on the TV and AUDIO OUT jacks on the VCR.

If you have a mono VCR, connect L (mono) to VCR audio out using only one audio cable.

3

Connect a video cable between the “AV IN 1 (VIDEO)” jack on the TV and the VIDEO OUT jack on the VCR.

Refer to your VCR’s instructions for more information about how to view your VCR tape.



- Also, you can connect to “AV IN 2” on the side panel of TV.

Connecting a Second VCR to Record from the TV

Your TV can send out signals of its picture and sound to be recorded by a second VCR. To do this, connect your second VCR as follows:

1
Connect a set of audio cables between the "AV OUT (R, L)" jacks on the TV and the AUDIO IN jacks on the VCR.
(The VCR input jacks might be either on the front or rear of the VCR.)

2
Connect a video cable between the "AV OUT (VIDEO)" jack on the TV and the VIDEO IN jack on the VCR.

Refer to your VCR's instructions for more information about how to record using this kind of connection.

TV Rear Panel

VCR Rear Panel

Audio Cable (1)

Video Cable (2)

Coaxial Cable

From Cable

From Antenna

Connecting a Camcorder

The side panel jacks on your TV make it easy to connect a Camcorder to your TV. They allow you to view the Camcorder tapes without using a VCR.

- Please be sure to match the color coded input terminals and cable jacks.

1
Locate the A/V output jacks on the Camcorder. They are usually found on the side or rear of the Camcorder.

2
Connect a set of audio cables between the "AV IN 2 (R, L)" jacks on the TV and the AUDIO OUT jacks on the Camcorder. If you have mono Camcorder, connect L(mono) to Camcorder audio out using only one audio cable.

3
Connect a video or S-video cable between the "AV IN 2 (VIDEO)" (or "S-VIDEO") jack on the TV and the VIDEO OUT jacks on the Camcorder.

The audio-video cables shown here are usually included with a Camcorder. (If not, check your local electronics store.) If your Camcorder is stereo, you need to connect a set of two cables.

TV Side Panel

Camcorder

S-Video Cable (3)

OR

Video Cable (3)

Audio Cable (2)

- This figure shows the Standard connector-jack panel. The actual configuration for your TV may be different.

Connecting a DVD Player

The rear panel jacks on your TV make it easy to connect a DVD player to your TV.

- Please be sure to match the color coded input terminals and cable jacks.

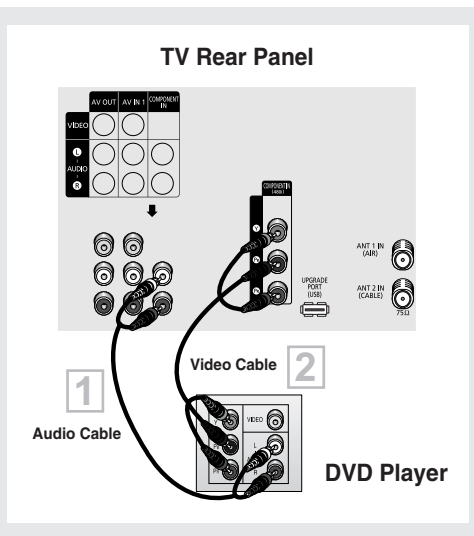
Connecting to Y, Pb, Pr

1

Connect a set of audio cables between the “COMPONENT IN (R, L)” jacks on the TV and the AUDIO OUT jacks on the DVD player.

2

Connect a set of video cables between the “COMPONENT IN (Y, Pb, Pr)” jacks on the TV and the VIDEO OUT (Y, Pb, Pr) jacks on the DVD player.



- Component video separates the video into Y (Luminance (brightness)), Pb (Blue) and Pr (Red) for enhanced video quality. Be sure to match the component video and audio connections. For example, if connecting the video cable to COMPONENT IN, connect the audio cable to COMPONENT IN also.
- This product is an SD-grade DTV and must be connected in the resolution of 480i. If this product is connected in the resolution of 480p, 720p or 1080i, the screen may be displayed abnormally or may not be displayed at all.

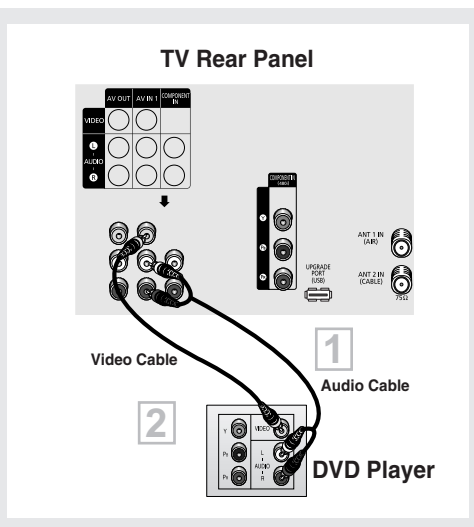
Connecting to Regular Audio and Video Jacks

1

Connect a set of audio cables between the “AV IN 1 (R, L)” jacks on the TV and the AUDIO OUT jacks on the DVD player.

2

Connect a video cable between the “AV IN 1 (VIDEO)” jack on the TV and the VIDEO OUT jack on the DVD player.



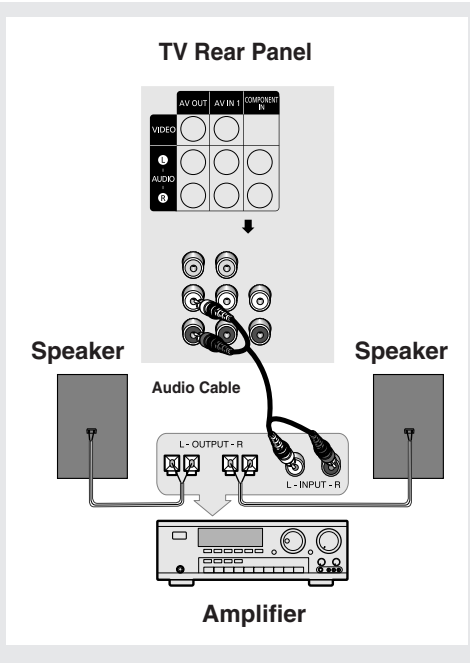
- Also, you can connect to “AV IN 2” on the side panel of TV.

Connecting to an Analog Amplifier

- Please be sure to match the color coded input terminals and cable jacks.

The "AV OUT (R, L)" terminals cannot be used for external speakers. You must hook them up to an amplifier.

When an audio amplifier is connected to the "AV OUT (R, L)" terminals: Decrease the gain (volume) of the TV, and adjust the volume level with the Amplifier's volume control.



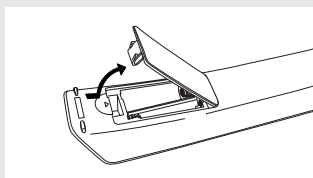
AV OUT R-AUDIO-L			
RF		AV, S-Video	Component (480i)
Digital	Analog		
Sound Output	Sound Output	Sound Output	Mute

- If you want to play movies by connecting DVD player with the COMPONENT IN jacks on the TV, connect the AUDIO OUT jacks on DVD player to an Amplifier.

Installing Batteries in the Remote Control

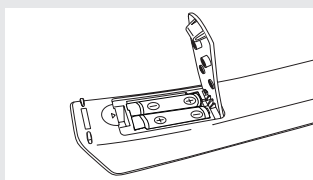
1

Lift the cover at the back of the remote control upward as shown in the figure.



2

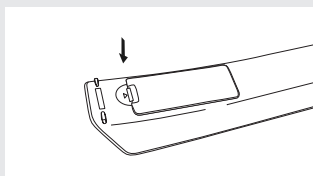
Install two AAA size batteries.



◀ Make sure to match the “+” and “-” ends of the batteries with the diagram inside the compartment.

3

Close the cover as shown in the figure.



◀ Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time.

The remote control can be used up to about 23 feet from the TV. (Assuming typical TV usage, the batteries last for about one year.)

Chapter Three

OPERATION

Turning the TV On and Off

Press the **POWER** button on the remote control.
You can also use the **POWER** button on the front panel.

Plug & Play Feature

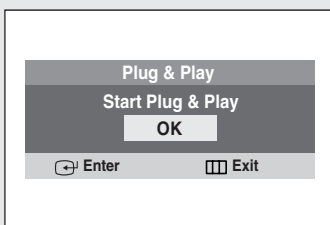
When the TV is initially powered On, basic customer settings proceed automatically and subsequently: Setting the language, Antenna input check, Channel Memorize and Time Setting.

- The Plug & Play function operates after plugging in the TV for the first time.

1

Press the **POWER** button on the remote control.

The “Start Plug & Play” is displayed.
Press the **ENTER** button, then the “Language” is displayed.



◀ Plug & Play feature is available in the TV and DTV mode only.

◀ Even if **ENTER** button is not pressed, the “Language” will be displayed automatically.

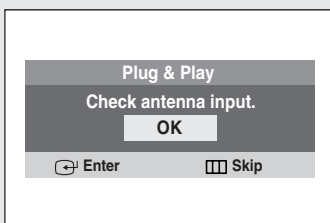
2

Press the **▲** or **▼** button to select the desired language, then press the **ENTER** button.
The “Check antenna input.” is displayed.



3

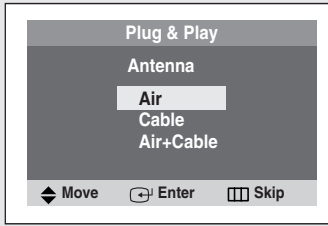
Make sure that the antenna is connected to the TV.
Press the **ENTER** button, then “Antenna” is displayed.



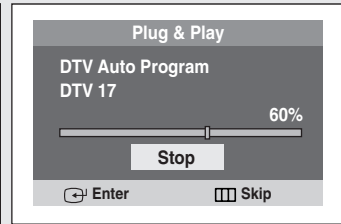
continued...

4

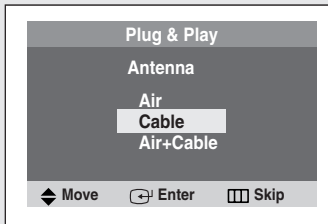
Press the ▲ or ▼ button to select the desired connection. Press the **ENTER** button to memorize the channels of the selected connection.



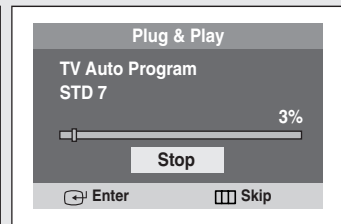
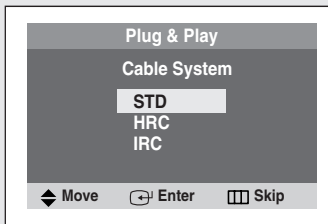
First analog, then digital channels will be memorized.



When selecting Cable TV: Press the ▲ or ▼ button to select "Cable", then press the **ENTER** button. "Cable System" is displayed. Press the ▲ or ▼ button to select "STD", "HRC", or "IRC", then press the **ENTER** button.



Press the **ENTER** button to start. The TV begins memorizing all available channels. Press the **ENTER** button to stop.



After all available channels are stored, the "Clock Set" is displayed.

- STD, HRC and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area.
- When Air (①), Cable (②), or Air+Cable (③) is selected on the Antenna menu in the Plug & Play or Auto Program menus :

Antenna Select		Channel Memorization			
		Antenna Air: Analog Channels	Antenna Air: DTV Channels	Antenna Cable: Analog Channels	Antenna Cable: DTV Channels
①	Air	O	O	X	X
②	Cable	X	X	O	X
③	Air + Cable	O	O	O	X

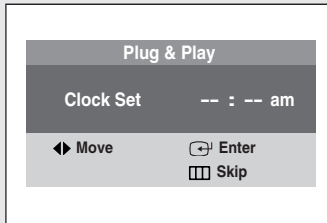
O : Channels can be memorized.
X : Channels can not be memorized.

For Example, when you want to receive the DTV Air signal, connect your antenna to the "ANT 1 IN (AIR)" terminal on the back of the set and select Air (①) or Air+Cable (③).

continued...

5

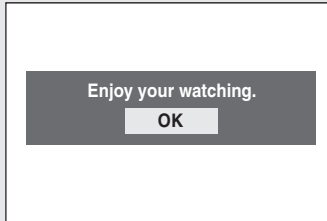
Press the ◀ or ▶ button to move to the hour or minute. Set the clock by pressing the ▲ or ▼ button, then press the **MENU** button.



◀ Refer to “Setting the Clock” on page 39.

6

The message “Enjoy your watching.” is displayed. When you have finished, press the **ENTER** button.

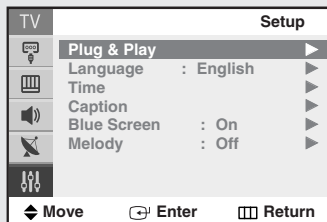


◀ Even if the **ENTER** button is not pressed, the message will automatically disappear after several seconds.

7

If you want to reset this feature

- (1) Press the **MENU** button.
- (2) Press the ▲ or ▼ button to select “Setup”, then press the **ENTER** button. “Plug & Play” is selected.
- (3) Press the **ENTER** button. “Start Plug & Play” is displayed.

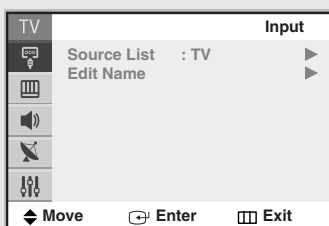


Viewing the Menus and On-Screen Displays

Viewing the Menus

1

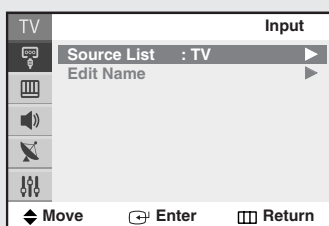
With the power on, press the **MENU** button. The "Input" menu appears on the screen. Its left side has five icons: Input, Picture, Sound, Channel, and Setup.



Press the **▲** or **▼** button to select one of the five icons. Then press the **ENTER** button to access the icon's sub-menu.

2

Press the **▲** or **▼** button to move to items in the menu (the icon is selected). Press the **ENTER** or **▶** button to enter items in the menu. Press the **▲/▼/◀/▶** button to change the selected items. Press the **MENU** or **◀** button to return to the previous menu.



◀ You can also use the **MENU**, **VOL+/-** and **CH^/▼** buttons on the control panel of the TV to make selections.

3

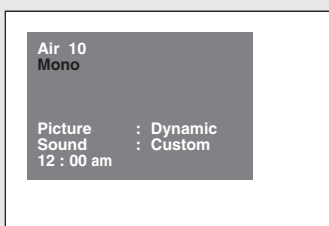
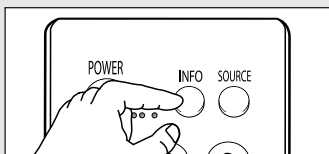
Press the **EXIT** button to exit.

Viewing the Display

The display identifies the current channel and the status of certain audio-video settings.

Alternate method:

Press the **INFO** button on the remote control. The TV displays the current channel, the status of certain picture, sound settings and the current time.

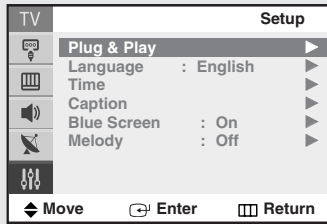


Selecting a Menu Language

1

Press the **MENU** button.

Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.



2

Press the **▲** or **▼** button to select "Language", then press the **ENTER** button.

Press the **▲** or **▼** button to select "English", "Español", or "Français", then press the **ENTER** button.

Press the **EXIT** button to exit.

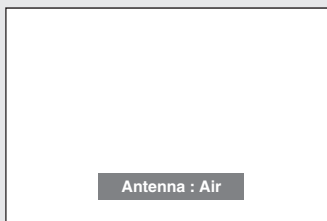
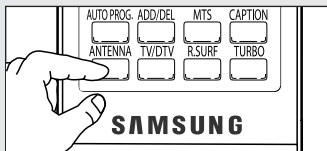


Selecting the Antenna Input

You can connect to two different signal sources by choosing the antenna input (Air or Cable).

Alternate method:

Press the **ANTENNA** button repeatedly to select "Air" or "Cable".



Memorizing the Channels

Your TV can memorize and store all of the available channels for both “off-air” (antenna) and cable channels. After the available channels are memorized, use the **CH \wedge** and **CH \vee** buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

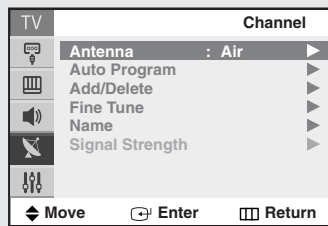
Selecting the Video Signal Source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).

1

Press the **MENU** button.

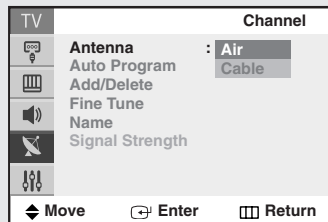
Press the **▲** or **▼** button to select “Channel”, then press the **ENTER** button



2

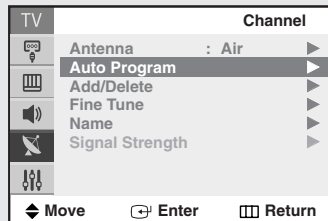
Press the **ENTER** button to select “Antenna”.

Press the **▲** or **▼** button to select “Air” or “Cable”, then press the **ENTER** button.



3

Press the **▲** or **▼** button to select “Auto Program”, then press the **ENTER** button.

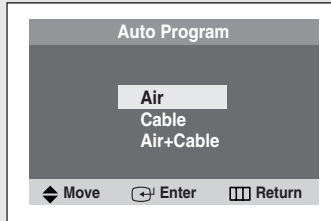


continued...

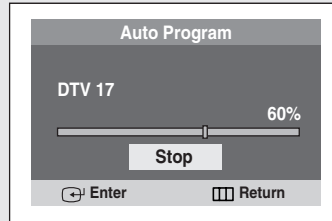
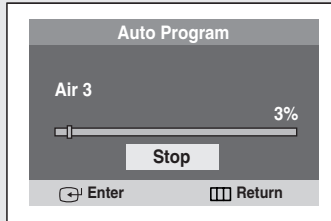
Storing Channels in Memory

4

Press the ▲ or ▼ button to select the antenna connection, then press the **ENTER** button.

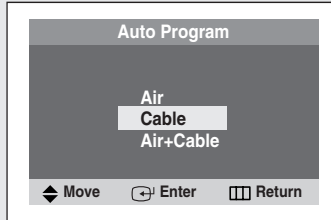


First analog, then digital channels will be memorized.

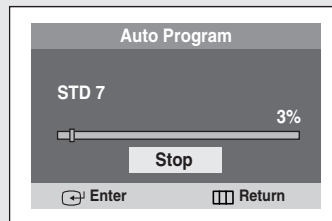
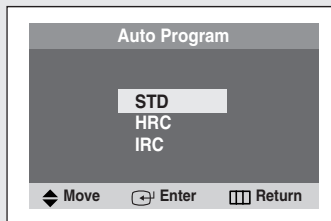


When selection **Cable TV**:

Press the ▲ or ▼ button to select "Cable", then press the **ENTER** button. Press the ▲ or ▼ button to select "STD", "HRC", or "IRC", then press the **ENTER** button.



Press the **ENTER** button to start. The TV begins memorizing all available channels. Press the **ENTER** button to stop.



- STD, HRC and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area.
- When **Air** (①), **Cable** (②), or **Air+Cable** (③) is selected on the Antenna menu in the Plug & Play or Auto Program menus :

Antenna Select		Channel Memorization			
		Antenna Air: Analog Channels	Antenna Air: DTV Channels	Antenna Cable: Analog Channels	Antenna Cable: DTV Channels
①	Air	O	O	X	X
②	Cable	X	X	O	X
③	Air + Cable	O	O	O	X

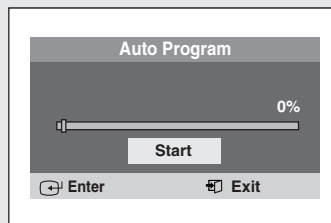
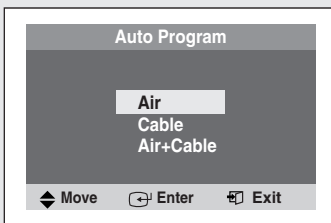
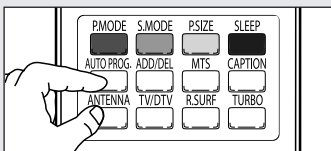
O : Channels can be memorized.

X : Channels can not be memorized.

For Example, when you want to receive the DTV Air signal, connect your antenna to the "ANT 1 IN (AIR)" terminal on the back of the set and select **Air** (①) or **Air+Cable** (③).

continued...

Alternate method:
Simply press the **AUTO PROG.** button on the remote control to memorize the channels menu.



- All available channels are automatically stored in memory when channels are selected by the direct tuning function.
- The TV must be connected to an antenna in order to receive TV signals. Even if a particular channel is deleted from the memory, you can always tune to that channel directly by using the number buttons on the remote control.

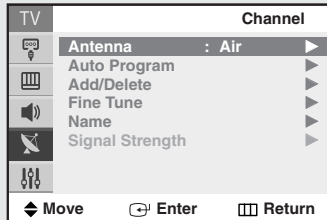
Adding and Erasing Channels

To add channels that were not memorized (or to delete unwanted channels from memory):

1

Press the **MENU** button.

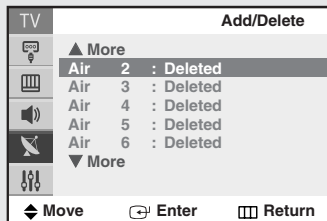
Press the **▲** or **▼** button to select "Channel", then press the **ENTER** button.



2

Press the **▲** or **▼** button to select "Add/Delete", then press the **ENTER** button.

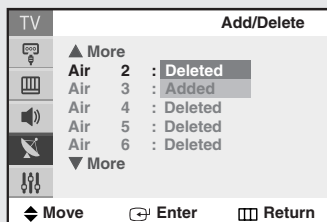
Press the **▲** or **▼** button to select the desired channel, then press the **ENTER** button.



3

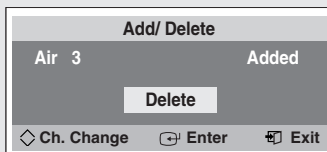
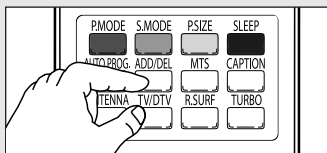
Press the **▲** or **▼** button to select "Deleted" or "Added", then press the **ENTER** button.

Press the **EXIT** button to exit.



Alternate method:

Simply press the **ADD/DEL** and **ENTER** buttons on the remote control to add channels that were not memorized or to delete unwanted channels from memory.



Changing Channels

Using the Channel Buttons

Press the **CH \wedge** or **CH \vee** button to change channels.

When you press **CH \wedge** or **CH \vee** , the TV changes channels in sequence. You will see all the channels that the TV has memorized. (The TV must have memorized at least three channels.) You will not see channels that were either erased or not memorized.

Using the Number Buttons

Use the number buttons to quickly tune to any channel.

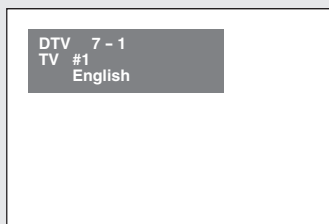
Press the number buttons to go directly to a channel.
For example, to select channel 27, press "2" then "7".
The TV will change channels when you press the second number.

To select a channel over 100, press the "**-**" button. (For channel "122", press the +100 button, then "2", then "2".)

Using the "**-**" Button in DTV mode

The "**-**" button is used to select channels that broadcast a digital signal.

For example, for channel 7 (digital), press "7", then "-", then "1" and you will see as left.



Using the PRE-CH Button to Select the Previous Channel

Alternate method:
Press the **PRE-CH** button.
The TV changes to the last channel you were watching.



◀ To quickly switch between two channels that are far apart, tune to one channel, then use the number buttons to select the second channel. Then, use the **PRE-CH** button to quickly alternate between them.

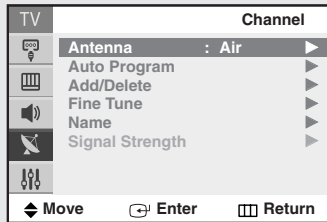
Labelling the Channels

Use this feature to assign an easy-to-remember label to any channel (i.e., “CBS”, “ESPN”, “PBS2”, “CNN1”, etc.). A label consists of four fields, where each field is a letter, a number or a blank. When the **INFO** button is pressed, the channel label will appear next to the channel number.

1

Press the **MENU** button.

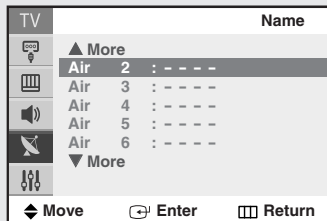
Press the **▲** or **▼** button to select “Channel”, then press the **ENTER** button.



2

Press the **▲** or **▼** button to select “Name”, then press the **ENTER** button.

Press the **▲** or **▼** button to select the channel to be assigned to a new name, then press the **ENTER** button.



◀ If you add or delete the TV channel, the corresponding label information will also be added or deleted.

3

Press the **▲** or **▼** button to select a letter, a number or a blank. (Results in this sequence: A...Z, 0...9, blank, *, -.)

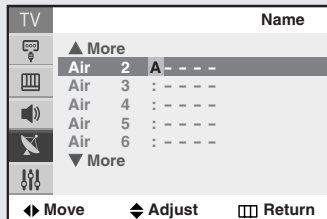
Press the **▶** button to switch to the next field, which will be selected.

Select a second letter or digit by pressing the **▲** or **▼** button, as above.

Repeat the process to select the last two digits.

When you have finished, press the **MENU** or **ENTER** button.

Press the **EXIT** button to exit.



Picture Control

You can select the type of picture which best corresponds to your viewing requirements.

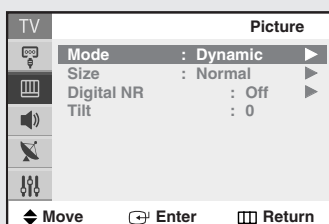
Using Automatic Picture Settings

Your TV has automatic picture settings (“Dynamic”, “Standard”, and “Movie”) that are preset at the factory. You can activate either Dynamic, Standard, or Movie by making a selection from the menu. Or, you can select “Custom” which automatically recalls your personalized picture settings.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select “Picture”, then press the **ENTER** button.

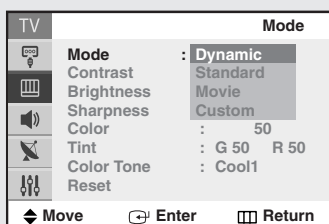


2

Press the **ENTER** button to select “Mode”.

Press the **ENTER** button again.

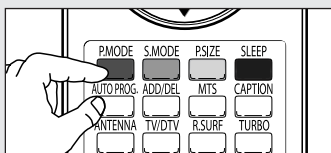
Press the **▲** or **▼** button to select a particular item, then press the **ENTER** button.



Press the **EXIT** button to exit.

Alternate method:

Simply press the **P.MODE** button on the remote control repeatedly to select one of the standard picture settings.



Dynamic

- Choose “Dynamic” for viewing the TV during the day or when there is bright light in the room.
- Choose “Standard” for the standard factory settings.
- Choose “Movie” when viewing a movie.
- Choose “Custom” if you want to adjust the settings according to personal preference.

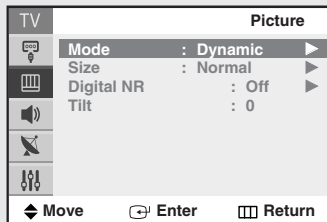
Customizing the Picture

You can use the on-screen menus to change the “Contrast”, “Brightness”, “Sharpness”, “Color”, “Tint”, and “Color Tone” according to personal preference.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select “Picture”, then press the **ENTER** button.

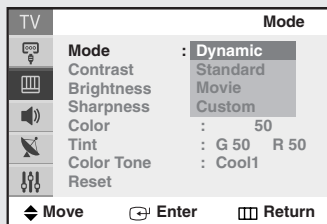


2

Press the **ENTER** button to select “Mode”.

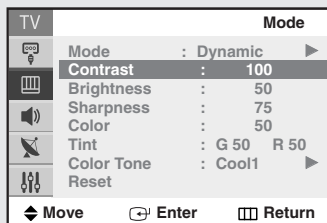
Press the **ENTER** button again.

Press the **▲** or **▼** button to select a particular item (“Dynamic”, “Standard”, “Movie”, or “Custom”), then press the **ENTER** button.



3

Press the **▲** or **▼** button to select a particular item (“Contrast”, “Brightness”, “Sharpness”, “Color”, or “Tint”), then press the **ENTER** button.



◀ You can not adjust the “Tint” in DTV, AV, S-Video, or any component mode.

4

Press the **◀** or **▶** button to decrease or increase the value of a particular item.

Press the **▲** or **▼** button to select other items.

When you have finished, press the **ENTER** button.

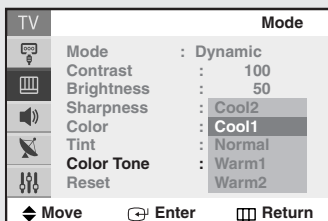


continued...

5

Press the ▲ or ▼ button to select "Color Tone", then press the **ENTER** button.

Press the ▲ or ▼ button to select a particular item ("Cool2", "Cool1", "Normal", "Warm1", or "Warm2"), then press the **ENTER** button.

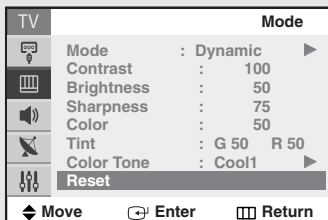


Resetting the Picture Settings to the Factory Defaults

6

Press the ▲ or ▼ button to select "Reset", then press the **ENTER** button.

The reset function is set for each mode ("Dynamic", "Standard", "Movie", or "Custom").



The previously adjusted settings will be reset to the factory defaults.

Press the **EXIT** button to exit.

Sound Control

Adjusting the Volume

Press the **VOL +** or **VOL -** buttons to increase or decrease the volume.

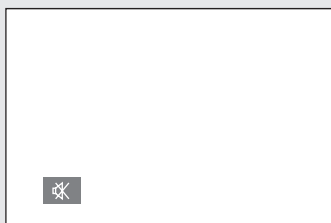
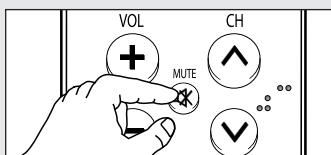
Using the MUTE Button

At any time, you can temporarily cut off the sound using the **MUTE** button.

1

Press the **MUTE** button and the sound cuts off. "M" is displayed.

To turn mute off, press the **MUTE** button again, or press either the **VOL +** or **VOL -** button.



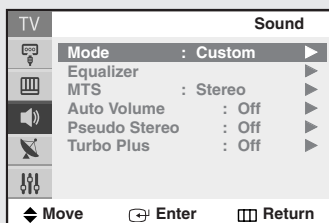
Using Automatic Sound Settings

Your TV has automatic sound settings (“Standard”, “Music”, “Movie”, and “Speech”) that are preset at the factory. You can activate either Standard, Music, Movie or Speech by making a selection from the menu. Or, you can select “Custom,” which automatically recalls your personalized sound settings.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select “Sound”, then press the **ENTER** button.

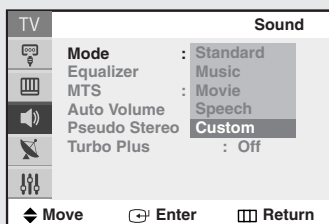


2

Press the **ENTER** button to select “Mode”.

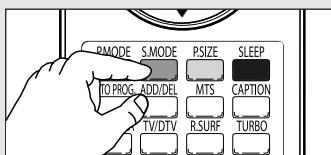
Press the **▲** or **▼** button to select a particular item, then press the **ENTER** button.

Press the **EXIT** button to exit.



Alternate method:

Press the **S.MODE** button on the remote control repeatedly to select one of the standard sound settings.



Custom

- Choose “Standard” for the standard factory settings.
- Choose “Music” when watching music videos or concerts.
- Choose “Movie” when watching movies.
- Choose “Speech” when watching a show that is mostly dialog (i.e., news).
- Choose “Custom” to recall your personalized settings.

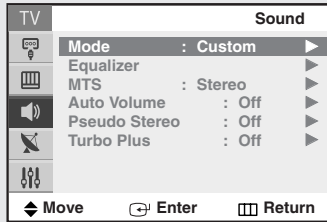
Customizing the Sound

The sound settings can be adjusted to suit your personal preferences. (Alternatively, you can use one of the automatic settings. See page 37.)

1

Press the **MENU** button.

Press the **▲** or **▼** button to select “Sound”, then press the **ENTER** button.



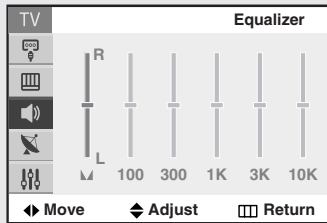
2

Press the **▲** or **▼** button to select “Equalizer”, then press the **ENTER** button.

Press the **◀** or **▶** button to select the balance or a particular frequency to be adjusted.

Press the **▲** or **▼** button to increase or decrease the level of the required item.

Press the **EXIT** button to exit.



- If you make any changes to the equalizer settings, the sound mode is automatically switched to the “Custom” mode.
- “R/L” Sound Balance Adjustment
To adjust the sound balance of the R/L speakers.
- Bandwidth Adjustment (100, 300, 1K, 3K, 10K)
To adjust the level of different bandwidth frequencies.

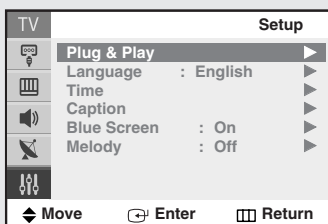
Setting the Clock

Setting the clock is necessary in order to use the various timer features of the TV. Also, you can check the time while watching the TV. (Just press the **INFO** button.)

1

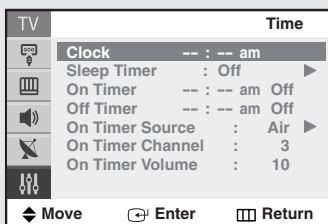
Press the **MENU** button.

Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.



2

Press the **▲** or **▼** button to select "Time", then press the **ENTER** button.

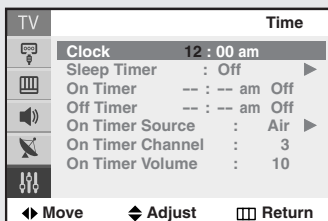


3

Press the **ENTER** button to select "Clock".

Press the **◀** or **▶** button to move to the hour or minute. Set the clock by pressing the **▲** or **▼** button, then press the **ENTER** button.

Press the **EXIT** button to exit.



◀ The current time will appear every time you press the **INFO** button.

Viewing an External Signal Source

Use the remote control to switch between viewing signals from connected equipment, such as a VCR, DVD, set-top box, and the TV source (broadcast or cable).

Setting the Signal Source

1

Press the **MENU** button.

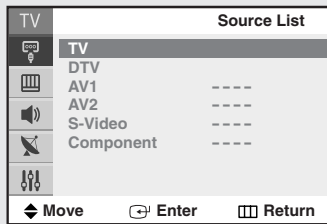
Press the **ENTER** button to select "Input".



2

Press the **ENTER** button to select "Source List".

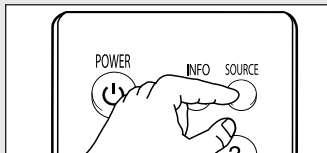
Press the **▲** or **▼** button to select the desired signal source, then press the **ENTER** button.



◀ When you connect equipment to the TV, you can choose between the following sets of jacks : AV1 or Component on the TV's rear panel, and AV2 or S-Video on the TV's side panel.

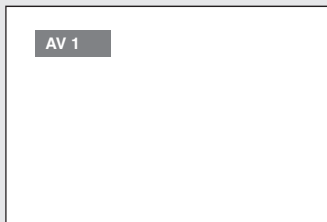
Alternate method:

Press the **SOURCE** button on the remote control repeatedly to select the desired signal source.



◀ **SOURCE** button :

In TV (Analog) mode
 : TV → AV1 → AV2 → S-Video
 → Component
 In DTV (Digital) mode
 : DTV → AV1 → AV2 →
 S-Video → Component



Assigning Names to External Input Mode

1

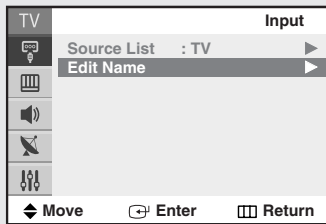
Press the **MENU** button.

Press the **ENTER** button to select "Input".



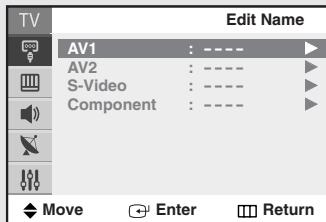
2

Press the **▲** or **▼** button to select "Edit Name", then press the **ENTER** button.



3

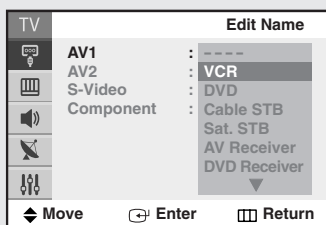
Press the **▲** or **▼** button to select the signal source to be edited, then press the **ENTER** button.



4

Press the **▲** or **▼** button to select the desired external device (VCR, DVD, Cable STB, Sat. STB, AV Receiver, DVD Receiver, Game, Camcorder, DVD Combo). Press the **ENTER** button.

Press the **EXIT** button to exit.



Chapter Four

SPECIAL FEATURES

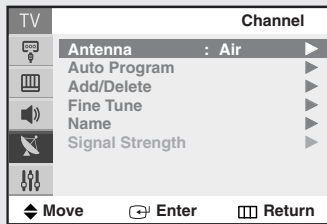
Analog Fine Tuning Channels

The Fine Tuning function lets you manually adjust the TV's tuner if you have difficulty tuning channels.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select "Channel", then press the **ENTER** button.



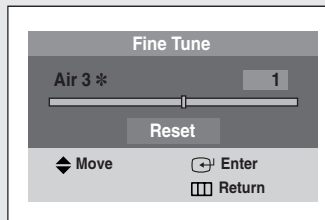
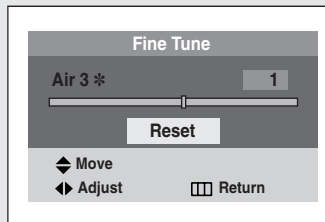
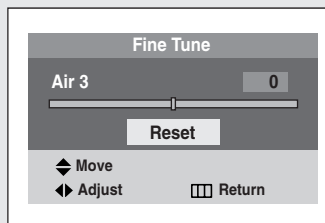
2

Press the **▲** or **▼** button to select "Fine Tune", then press the **ENTER** button.

Press the **◀** or **▶** button to adjust the fine tuning. To store the fine tuning setting in the TV's memory, press the **MENU** button.

To reset the fine tuning to "0", select "Reset" by pressing the **▲** or **▼** button, then press the **ENTER** button.

Press the **EXIT** button to exit.



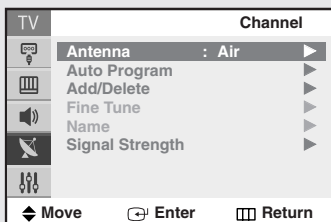
◀ The symbol " * " will appear next to the name of the channels you have adjusted.

Digital Checking the Digital-Signal Strength

Unlike analog channels, which can vary in reception quality from “snowy” to clear, digital (HDTV) channels have either perfect reception quality or you will not receive them at all. So, unlike analog channels, you cannot fine tune a digital channel. You can, however, adjust your antenna to improve the reception of available digital channels.

1
Press the **MENU** button.

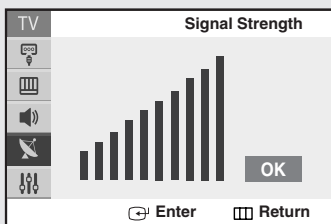
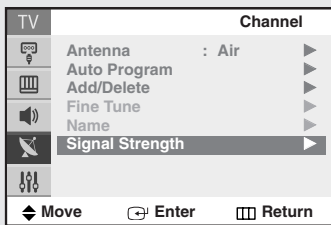
Press the **▲** or **▼** button to select “Channel”, then press the **ENTER** button.



2
Press the **▲** or **▼** button to select “Signal Strength”, then press the **ENTER** button.

If the signal strength meter indicates that the signal is weak, physically adjust your antenna to increase the signal strength. Continue to adjust the antenna until you find the best position with the strongest signal.

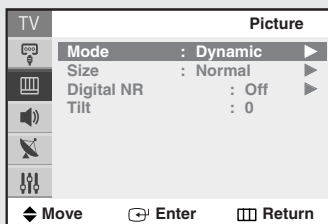
Press the **EXIT** button to exit.



Changing the Screen Size

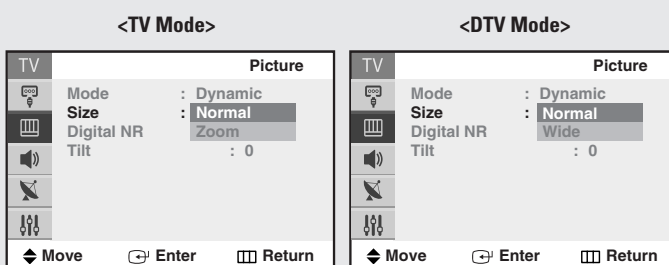
1
Press the **MENU** button.

Press the **▲** or **▼** button to select "Picture", then press the **ENTER** button.



2
Press the **▲** or **▼** button to select "Size", then press the **ENTER** button.

Press the **▲** or **▼** button to select the desired size, then press the **ENTER** button.



Press the **EXIT** button to exit.

Alternate method:

Press the **P.SIZE** button on the remote control repeatedly to select one of the screen formats you want.

TV Mode



DTV Mode



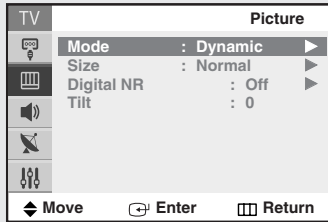
Digital Noise Reduction

If the signal received by the television is weak, you can activate this feature to reduce any static and ghosting that may appear on the screen.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select "Picture", then press the **ENTER** button.

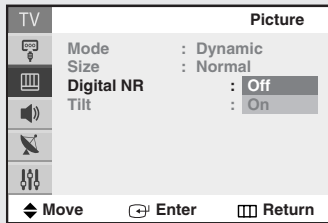


2

Press the **▲** or **▼** button to select "Digital NR", then press the **ENTER** button.

Press the **▲** or **▼** button to select "On" or "Off", then press the **ENTER** button.

Press the **EXIT** button to exit.



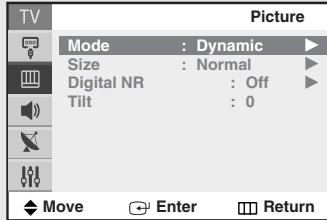
Tilt

Due to the Earth's magnetic field there may be some minor image tilt depending on the TV's location. When this occurs, follow the steps below.

1

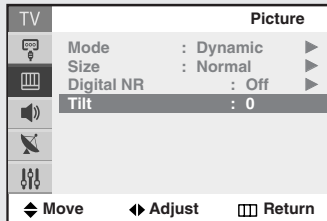
Press the **MENU** button.

Press the **▲** or **▼** button to select "Picture", then press the **ENTER** button.



2

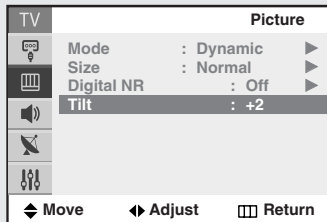
Press the **▲** or **▼** button to select "Tilt".



3

Press the **◀** or **▶** button to adjust the Tilt.

Press the **EXIT** button to exit.

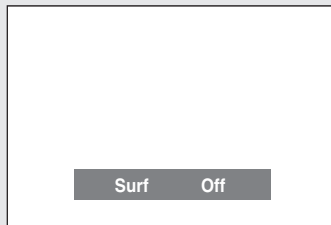
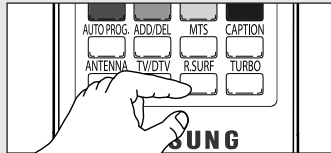


Using the R.Surf Feature

This feature allows you to set the TV to return to a particular channel after a certain amount of time. For example, you may be watching a channel when commercials start. You can set the R.Surf to “5 minutes”, then switch channels. After minutes, the TV will return to the original channel. To use the R.Surf feature:

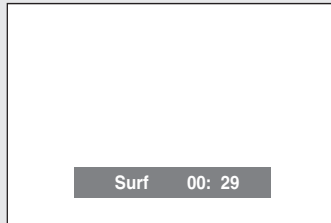
1

While you are watching the channel to which you want to return, press the **R.SURF** button. The “Surf Off” is displayed.



2

Press the **R.SURF** button again to set the timer in thirty second intervals, up to five minutes.



◀ The time will start decreasing while you are setting up the timer, and will reset after 5 minutes has passed or you turn it off.

3

The time you set will begin counting down on the screen. When the time runs out, the TV will return to the channel you were watching when you set the timer.

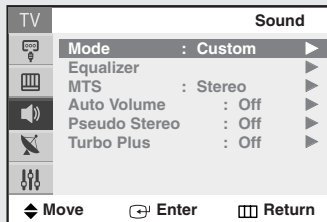
Analog**Choosing a Multi-Channel Sound (MTS) track**

Depending on the particular program being broadcast, you can listen to Mono, Stereo, or SAP.

1

Press the **MENU** button.

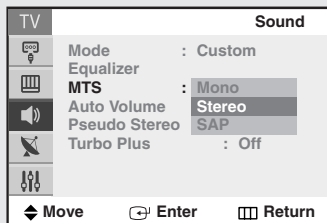
Press the **▲** or **▼** button to select "Sound", then press the **ENTER** button.

**2**

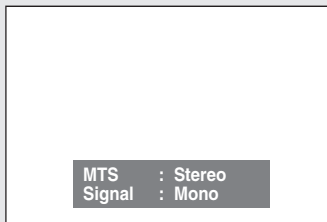
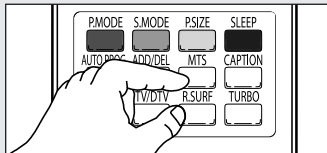
Press the **▲** or **▼** button to select "MTS", then press the **ENTER** button.

Press the **▲** or **▼** button to select one of the settings, then press the **ENTER** button.

Press the **EXIT** button to exit.

**Alternate method:**

Press the **MTS** button on the remote control repeatedly to select one of the settings.



- Choose "Mono" for channels that are broadcasting in mono, or if you are having difficulty receiving a stereo signal.
- Choose "Stereo" for channels that are broadcasting in stereo.
- Choose "SAP" to listen to the Separate Audio Program, which is usually a foreign-language translation.

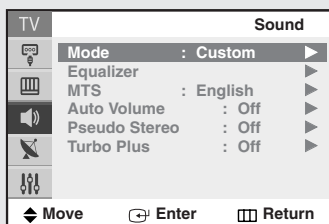
Digital Choosing a Multi-Channel Sound (MTS) track

The digital-TV transmission system is capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages). The availability of these additional “multitracks” depends upon the program.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select “Sound”, then press the **ENTER** button.

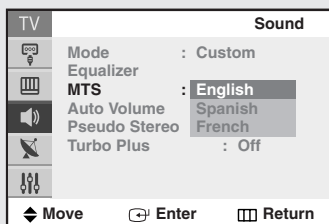


2

Press the **▲** or **▼** button to select “MTS”, then press the **ENTER** button.

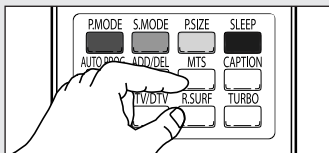
Press the **▲** or **▼** button to select the language you want, then press the **ENTER** button.

Press the **EXIT** button to exit.



Alternate method:

Press the **MTS** button on the remote control to listen in a language other than the favorite language.



2 English

Extra Sound Settings (Auto Volume, Pseudo Stereo, or Turbo Plus)

The following sound settings can be adjusted to suit your personal preferences

- **Auto Volume**

Each broadcasting station has its own signal conditions, which can make it necessary to adjust the volume every time the channel is changed. “Auto Volume” lets you automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

- **Pseudo Stereo**

“Pseudo Stereo” converts a monaural sound signal into two identical left and right channels. Once the “Pseudo Stereo” is set to “On” or “Off”, the setting applies to the sound effects such as “Standard”, “Music”, “Movie” and “Speech”.

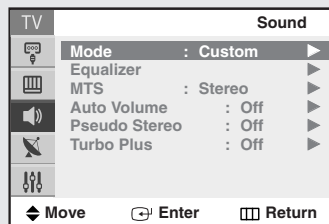
- **Turbo Plus**

“Turbo Plus” emphasizes the bass and treble frequencies to add fullness to the sound.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select “Sound”, then press the **ENTER** button.

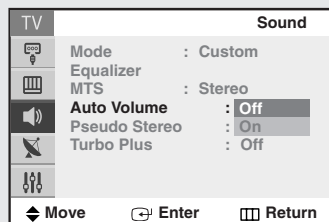


2

Press the **▲** or **▼** button to select the required item (“Auto Volume”, “Pseudo Stereo”, or “Turbo Plus”), then press the **ENTER** button.

Press the **▲** or **▼** button to select “On” or “Off”, then press the **ENTER** button.

Press the **EXIT** button to exit.

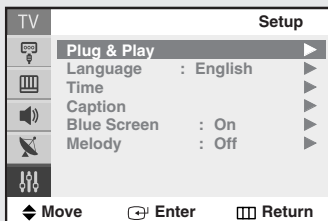


Setting the On/Off Timer

1

Press the **MENU** button.

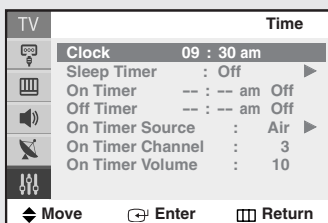
Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.



◀ You must set the clock first.

2

Press the **▲** or **▼** button to select "Time", then press the **ENTER** button.



◀ The current time will appear every time you press the **INFO** button.

3

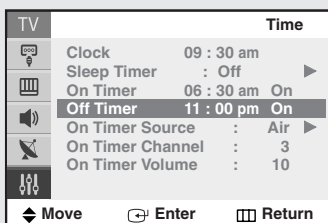
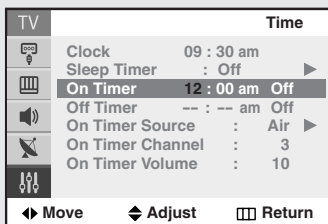
Press the **▲** or **▼** button to select "On Timer", then press the **ENTER** button.

Press the **◀** or **▶** button to move to the hour or minute. Set the clock by pressing the **▲** or **▼** button.

Press the **◀** or **▶** button to move to "Off". To activate the "On Timer", set to "On" by pressing the **▲** or **▼** button.

Press the **ENTER** button.

Set the "Off Timer" as methods for "On Timer" setting.



◀ **Auto Power Off**
When you set the timer "On", the television will eventually turn off, if no controls are operated for 3 hours after the TV was turned on by timer. This function is only available in timer "On" mode and prevents overheating or leakages, which may occur if a TV is on for too long time.

continued...

Setting the Preferred Option

The preferred TV source, channel and volume can be set for when the timer automatically turns on the TV.

4

Press the ▲ or ▼ button to select "On Timer Source", then press the **ENTER** button. Press the ▲ or ▼ button to select "Air", "Cable", or "DTV", then press the **ENTER** button.

Press the ▲ or ▼ button to select "On Timer Channel" or "On Timer Volume". Press the ◀ or ▶ button to select the desired channel or adjust volume level.

Press the **EXIT** button to exit.

TV	Time	
	Clock	09 : 30 am
	Sleep Timer	: Off
	On Timer	06 : 30 am On
	Off Timer	11 : 00 pm On
	On Timer Source	: Air
	On Timer Channel	: Cable
	On Timer Volume	: DTV
Move Enter Return		

TV	Time	
	Clock	09 : 30 am
	Sleep Timer	: Off ▶
	On Timer	06 : 30 am On
	Off Timer	11 : 00 pm On
	On Timer Source	: Air ▶
	On Timer Channel	: 3
	On Timer Volume	: 10
Move Adjust Return		

TV	Time	
	Clock	09 : 30 am
	Sleep Timer	: Off ▶
	On Timer	06 : 30 am On
	Off Timer	11 : 00 pm On
	On Timer Source	: Air ▶
	On Timer Channel	: 3
	On Timer Volume	: 10
Move Adjust Return		

◀ If the **Auto Program** was not performed for both signal sources (**Air** and **Cable**), you can select any channel you want as the **On Timer Channel**.

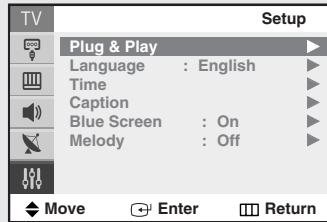
Setting the Sleep Timer

The sleep timer automatically shuts off the TV after a preset time (from 30 to 180 minutes).

1

Press the **MENU** button.

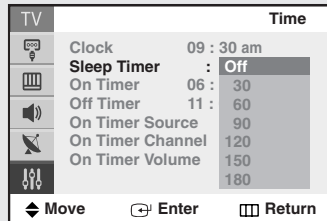
Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.



2

Press the **▲** or **▼** button to select "Time", then press the **ENTER** button.

Press the **▲** or **▼** button to select "Sleep Timer", then press the **ENTER** button.

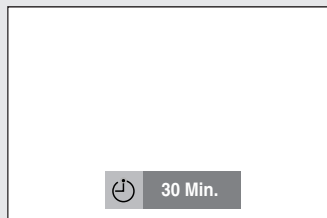
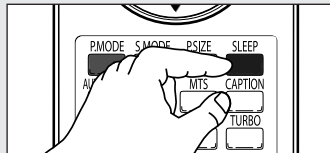


Press the **▲** or **▼** button to select the appropriate time interval, then press the **ENTER** button.

Press the **EXIT** button to exit.


Alternate method:

Press the **SLEEP** button on the remote control repeatedly until the appropriate time interval appears (any of the preset values from "30 Min." to "180 Min.").



◀ After about 5 seconds, the sleep display will disappear from the screen, and the time interval will be set.

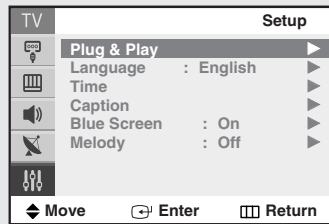
Analog**Viewing Closed Captions
(On-Screen Text Message)**

Your TV decodes and displays the closed captions that are broadcast with certain TV shows. These captions are usually subtitles for the hearing impaired or foreign-language translations. All VCRs record the closed caption signal from television programs, so home-recorded video tapes also provide closed captions. Most pre-recorded commercial video tapes provide closed captions as well. Check for the closed caption symbol in your television schedule and on the tape's packaging: .

1

Press the **MENU** button.

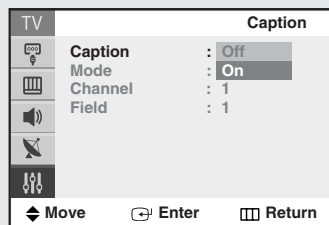
Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.

**2**

Press the **▲** or **▼** button to select "Caption", then press the **ENTER** button.

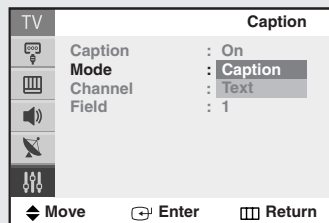
Press the **ENTER** button to select "Caption".

Press the **▲** or **▼** button to select "On", then press the **ENTER** button.

**3**

Press the **▲** or **▼** button to select "Mode", then press the **ENTER** button.

Press the **▲** or **▼** button to select "Caption" or "Text", then press the **ENTER** button.



◀ Misspellings and unusual characters sometimes occur during closed caption transmissions, especially those of live events. There may be a small delay before captions appear when you change channels. These are not malfunctions of the TV.

◀ In "Caption" mode, captions appear at the bottom of the screen, and they usually cover only a small portion of the picture. In "Text" mode, information unrelated to the program, such as news or weather, is displayed. Text often covers a large portion of the screen.

continued...

SPECIAL FEATURES

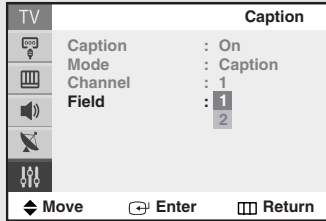
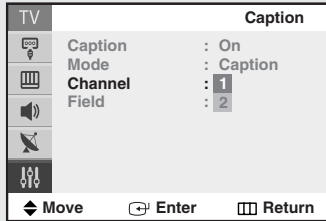
4

Depending on the particular broadcast, it might be necessary to make changes to "Channel" and "Field".

Press the ▲ or ▼ button to select "Channel" or "Field", then press the **ENTER** button.

Press the ▲ or ▼ button to select "1" or "2", then press the **ENTER** button.

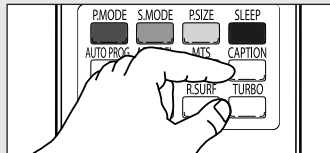
Press the **EXIT** button to exit.



◀ Different channels and fields display different information: Field 2 carries additional information that supplements the information in Field 1. (For example, Channel 1 may have subtitles in English, while Channel 2 has subtitles in Spanish.)

Alternate method:

Press the **CAPTION** button on the remote control repeatedly to select "On" or "Off".



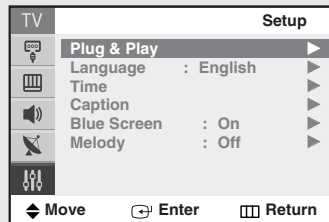
Digital Viewing Closed Captions (On-Screen Text Message)

The Digital Captions function operates on digital channels.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.

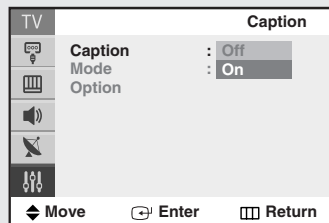


2

Press the **▲** or **▼** button to select "Caption", then press the **ENTER** button.

Press the **ENTER** button to select "Caption".

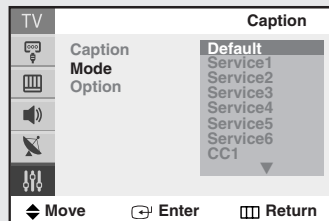
Press the **▲** or **▼** button to select "On", then press the **ENTER** button.



3

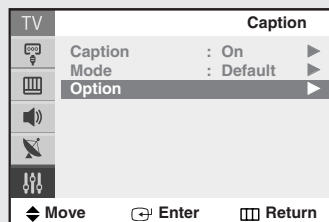
Press the **▲** or **▼** button to select "Mode", then press the **ENTER** button.

Press the **▲** or **▼** button to select submenu (Service1~ Service6, CC1~CC4, or Text1 ~ Text4) you want, then press the **ENTER** button.



4

Press the **▲** or **▼** button to select "Option", then press the **ENTER** button.



continued...

SPECIAL FEATURES

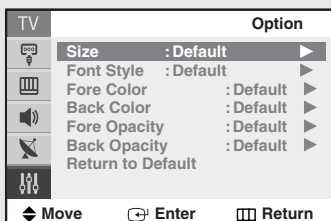
5

Press the **ENTER** button to select "Size".

Press the **▲** or **▼** button to select one you want, then press the **ENTER** button.

Set other listed options below using the same method as above.

Press the **EXIT** button to exit.



- ◀ The availability of captions depends on the program being broadcast.
- ◀ The "Default" means to follow the rule of broadcasting.
- ◀ Foreground Color and Back Color cannot be set to same color. Fore Opacity and Back Opacity cannot be both set to "Transparent".

Size

This option consists of "Default", "Small", "Standard" and "Large". The default is "Standard".

Font Style

This option consists of "Default", "Style0 ~ Style 7". You can change the font you want. The default is "Style 0".

Fore Color

This option consists of "Default", "White", "Black", "Red", "Green", "Blue", "Yellow", "Magenta" and "Cyan". You can change the color of the letter. The default is "White".

Back Color

This option consists of "Default", "White", "Black", "Red", "Green", "Blue", "Yellow", "Magenta" and "Cyan". You can change the background color of the caption. The default is "Black".

Fore Opacity

This option consists of "Default", "Solid", "Flashing", "Translucent", and "Transparent". You can change the opacity of the letter.

Back Opacity

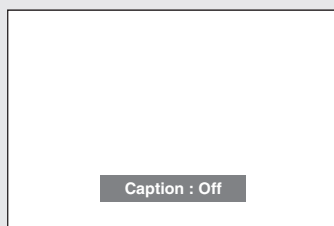
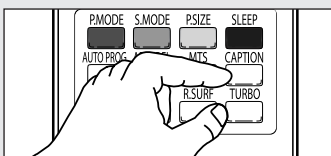
This option consists of "Default", "Solid", "Flashing", "Translucent", and "Transparent". You can change the background opacity of the caption.

Return to Default

This option sets each of "Size", "Font Style", "Fore Color", "Back Color", "Fore Opacity", and "Back Opacity" to its factory default.

Alternate method:

Press the **CAPTION** button on the remote control repeatedly to select "On" or "Off".

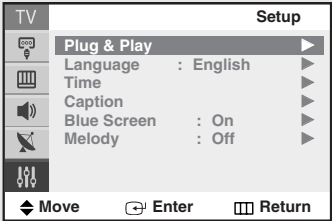


Setting the Blue Screen Mode

If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background. If you wish to continue viewing the poor picture, you must set the “Blue Screen” mode to “Off”.

1
Press the **MENU** button.

Press the **▲** or **▼** button to select “Setup”, then press the **ENTER** button.

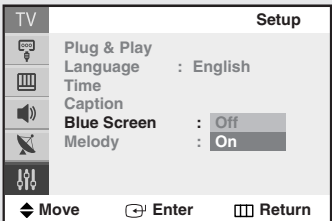


The image shows a TV screen with a 'Setup' menu. The 'Plug & Play' option is highlighted. The menu items are: Plug & Play, Language : English, Time, Caption, Blue Screen : On, and Melody : Off. At the bottom, there are navigation buttons: Move, Enter, and Return.

2
Press the **▲** or **▼** button to select “Blue Screen”, then press the **ENTER** button.

Press the **▲** or **▼** button to select “On” or “Off”, then press the **ENTER** button.

Press the **EXIT** button to exit.



The image shows the same TV screen as in step 1, but now the 'Blue Screen' option is highlighted. The 'Blue Screen' value is now 'Off' and 'Melody' is 'On'. The navigation buttons at the bottom are the same: Move, Enter, and Return.

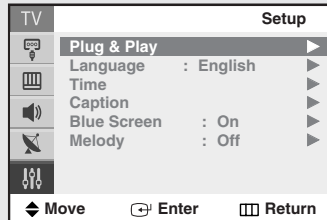
Setting the On/Off Melody

You can hear a melody sound when the TV is powered on or Off.

1

Press the **MENU** button.

Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.

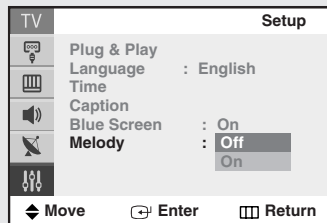


2

Press the **▲** or **▼** button to select "Melody", then press the **ENTER** button.

Press the **▲** or **▼** button to select "On" or "Off", then press the **ENTER** button.

Press the **EXIT** button to exit.



Chapter Five

TROUBLESHOOTING

If the TV seems to have a problem, first try this list of possible problems and solutions. If none of these troubleshooting tips apply, then call your nearest Samsung authorized service center.

Identifying Problems

Problem	Possible Solution
Poor picture.	Try another channel. Adjust the antenna. Check all wire connections.
Poor sound quality.	Try another channel. Adjust the antenna.
No picture or sound.	Try another channel. Press the SOURCE button. Make sure the TV is plugged in. Check the antenna connections. Make sure the MUTE button is off.
No color, wrong colors or tints.	Make sure the program is broadcast in color. Adjust the picture settings.
Picture rolls vertically.	Adjust the antenna. Check all wire connections. If you are using a VCR, check the tracking.
The TV operates erratically.	Unplug the TV for 30 seconds, then try operating it again.
Your remote control does not operate your TV.	Press the TV/DTV button to put your remote control in the "TV" mode. Make sure the remote has batteries. Check that the "+" and "-" ends of the batteries are inserted correctly. Check that the batteries are drained.
The TV won't turn on.	Make sure the wall outlet is working. Make sure the TV is plugged in. Make sure the remote has batteries.
Digital broadcasting screen problem	Please check the digital signal strength and input antenna.
The visual qualities of digital channels vary.	The visual qualities of digital channels may vary depending on the original production method (analog or digital). → If the original production method is digital: High visual quality program. → If the original production method is analog: The digital program displayed on the screen is originally an analog program which has been converted to digital. The visual quality is of an SD grade.
Although the TV caption shows HD, the visual quality is not satisfactory.	The HD caption that appears when switching channels or when pressing the Information button on the remote control means the selected channel is a digital channel. If the broadcasting station converts an analog signal into digital and transmits the signal, the visual quality may not be perfect.

Appendix

Cleaning and Maintaining Your TV

Please follow these guidelines to get the maximum performance from your TV.

Placement

- Do not place the TV near extremely hot, cold, humid or dusty places.
- Do not place the TV near appliances with electric motors that create magnetic fields, such as vacuum cleaners.
- Keep the ventilation openings clear; do not place the TV on a soft surface, such as cloth or paper.
- Place the TV in a vertical position only.

Liquids

- Do not handle liquids near or on the TV. Liquids that spill into it can cause serious damage.

Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your TV with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

- If your TV is suddenly moved from a cold to a warm place, unplug the power cord, and allow at least two hours for moisture that may have formed inside the unit to dry completely.

Using Your TV in Another Country

If you plan to take your TV with you to a foreign country, please be aware of the different television systems that are in use around the world. A TV designed for one system may not work properly with another system due to differences in the TV channel frequencies.

Specifications

Model	CL-29Z40MQ
Screen Size	29 inches
Power Supply	AC 120V \pm 10%, 60Hz
Power Consumption	160 W
Sound Output	7W + 7W
Dimension (W x D x H)	796 x 421 x 593 mm 31.3 x 16.5 x 23.3 inches
Weight	42 Kg / 92.5 lbs

***This page is intentionally
left blank.***

***This page is intentionally
left blank.***



Contact SAMSUNG WORLD-WIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Country	Customer Care Center ☎	Web Site
ARGENTINE	0800-333-3733	www.samsung.com/ar
BRAZIL	0800-124-421	www.samsung.com/br
CHILE	800-726-7864 (SAMSUNG)	www.samsung.com/cl
COSTA RICA	0-800-507-7267	www.samsung.com/latin
ECUADOR	1-800-10-7267	www.samsung.com/latin
EL SALVADOR	800-6225	www.samsung.com/latin
GUATEMALA	1-800-299-0013	www.samsung.com/latin
JAMAICA	1-800-234-7267	www.samsung.com/latin
MEXICO	01-800-SAMSUNG (7267864)	www.samsung.com/mx
PANAMA	800-7267	www.samsung.com/latin
PUERTO RICO	1-800-682-3180	www.samsung.com/latin
REP. DOMINICA	1-800-751-2676	www.samsung.com/latin
TRINIDAD & TOBAGO	1-800-7267-864	www.samsung.com/latin
VENEZUELA	1-800-100-5303	www.samsung.com/latin